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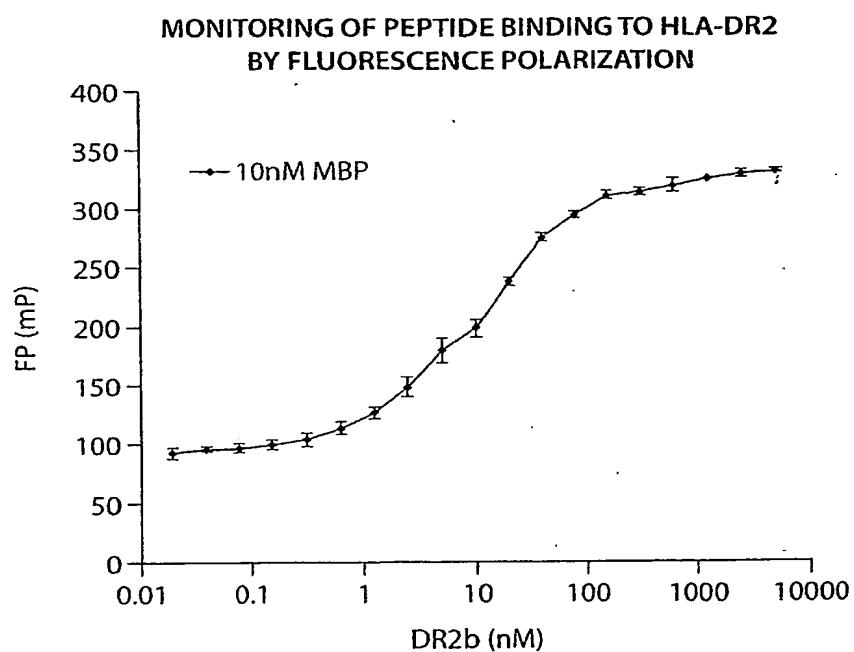
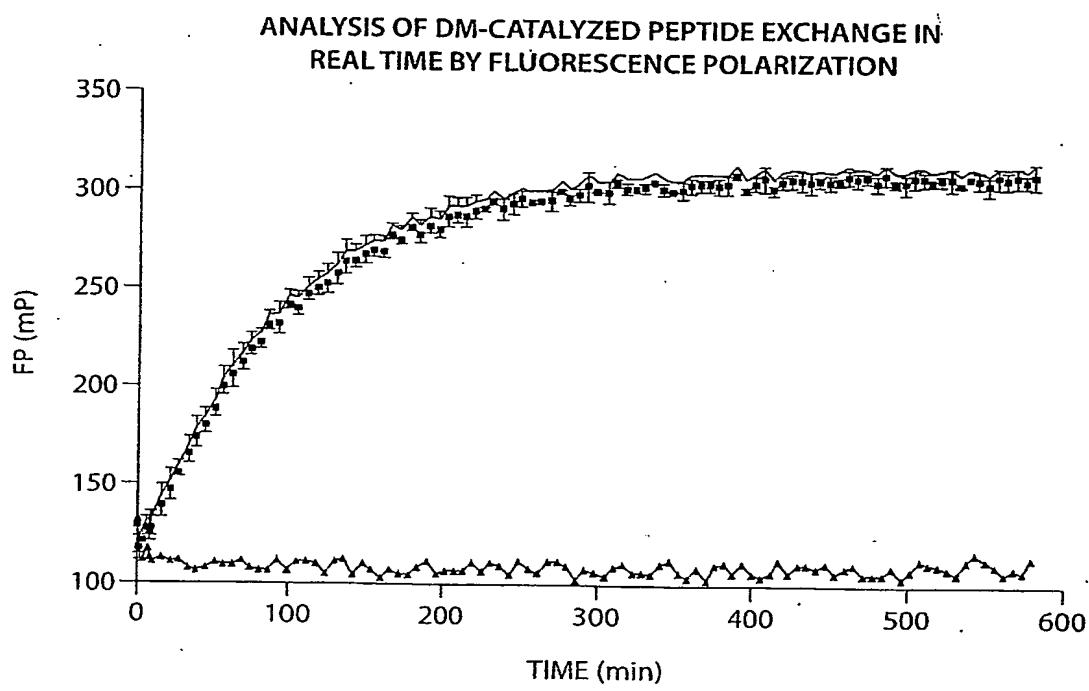


Fig. 1

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**Fig. 2**

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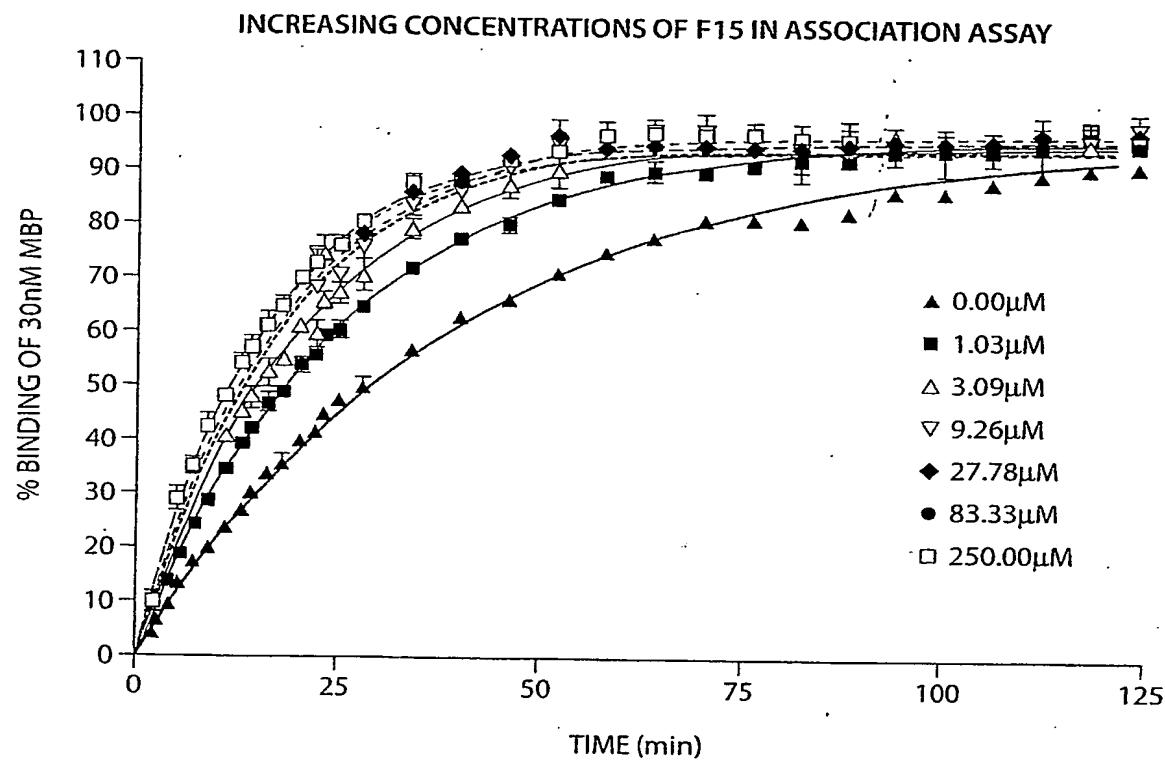
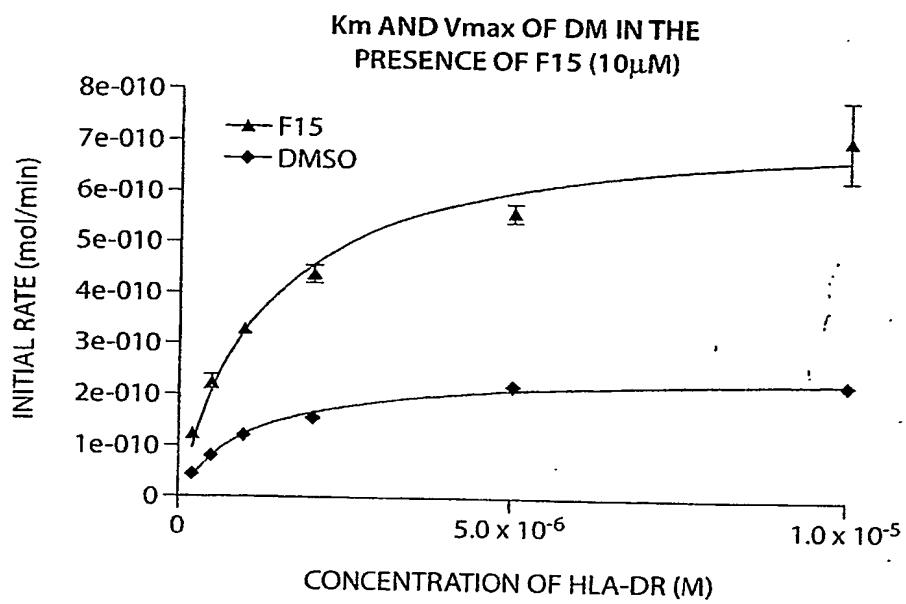


Fig. 3

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**CALCULATE Km AND Vmax FROM INITIAL RATES****BEST-FIT VALUES**

|                           | <b>F15</b>               | <b>DMSO</b>              |
|---------------------------|--------------------------|--------------------------|
| VMAX (x10 <sup>-8</sup> ) | 0.07611                  | 0.02521                  |
| PEP                       | 1.000e-008               | 1.000e-008               |
| KM                        | 1.343e-006               | 1.055e-006               |
| Std. ERROR                |                          |                          |
| VMAX                      | 0.004248                 | 0.0005050                |
| KM                        | 2.340e-007               | 7.033e-008               |
| 95% CONFIDENCE INTERVALS  |                          |                          |
| VMAX                      | 0.06710 TO 0.08512       | 0.02414 TO 0.02628       |
| KM                        | 8.465e-007 TO 1.839e-006 | 9.059e-007 TO 1.204e-006 |
| GOODNESS OF FIT           |                          |                          |
| DEGREES OF FREEDOM        | 16                       | 16                       |
| R <sup>2</sup>            | 0.9269                   | 0.9875                   |

**Fig. 4**

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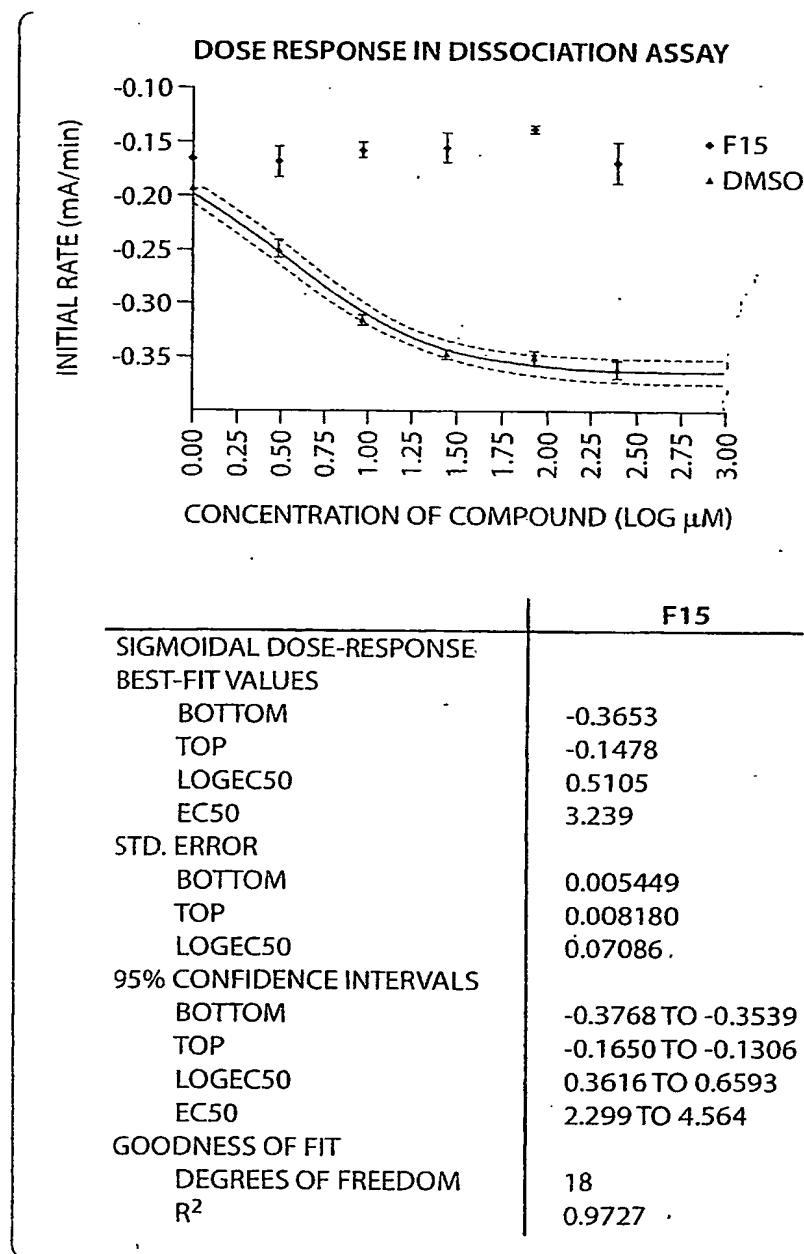


Fig. 5a

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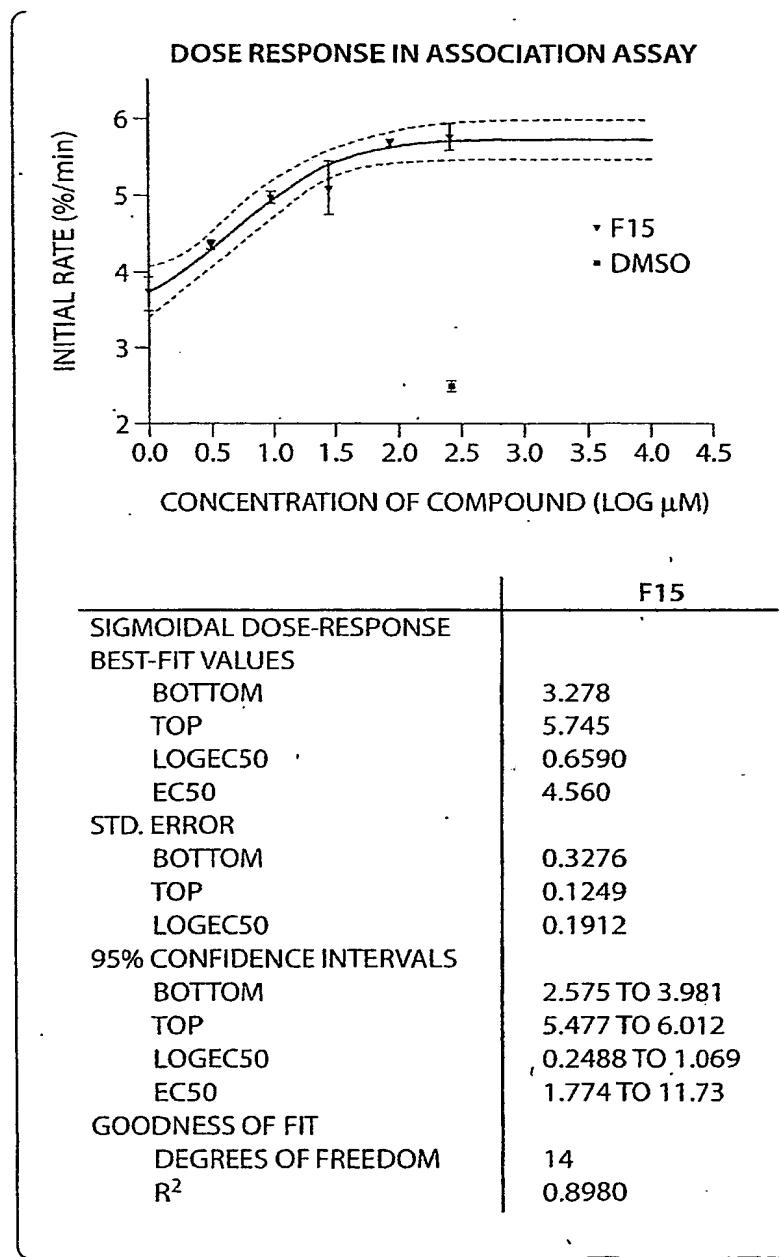


Fig. 5b

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Fig. 6

Fig. 7

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50 mM CITRATE pH5.2/150 mM NaCl (35 µl AND 40 µl) (BY HAND)

Fig. 8

#### MBP TITRATION (1 µl OF PREVIOUSLY PREPARED STOCK SOLUTIONS) (BY HAND)

Fig. 9

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35 µl HLA-DR2b (BY ROBOT)

Fig. 10

5 µl OF 80 nM MBP (ALEXA 488 AT P5) (BY HAND)

| Week | Day       | Activity                           | Notes |
|------|-----------|------------------------------------|-------|
| 1    | Monday    | Introduction to Python             |       |
| 1    | Tuesday   | Control Flow and Functions         |       |
| 1    | Wednesday | Lists and Dictionaries             |       |
| 1    | Thursday  | File I/O and Regular Expressions   |       |
| 1    | Friday    | Project Work                       |       |
| 2    | Monday    | Object-Oriented Programming        |       |
| 2    | Tuesday   | Testing and Debugging              |       |
| 2    | Wednesday | Advanced Data Structures           |       |
| 2    | Thursday  | APIs and Web Scraping              |       |
| 2    | Friday    | Project Work                       |       |
| 3    | Monday    | Machine Learning Fundamentals      |       |
| 3    | Tuesday   | Linear Algebra Review              |       |
| 3    | Wednesday | Statistical Methods                |       |
| 3    | Thursday  | Machine Learning Models            |       |
| 3    | Friday    | Project Work                       |       |
| 4    | Monday    | Deep Learning Overview             |       |
| 4    | Tuesday   | TensorFlow Fundamentals            |       |
| 4    | Wednesday | Neural Network Architectures       |       |
| 4    | Thursday  | Training and Optimizers            |       |
| 4    | Friday    | Project Work                       |       |
| 5    | Monday    | Final Project Presentations        |       |
| 5    | Tuesday   | Guest Lecture: AI in Healthcare    |       |
| 5    | Wednesday | Guest Lecture: AI in Finance       |       |
| 5    | Thursday  | Guest Lecture: AI in Manufacturing |       |
| 5    | Friday    | Guest Lecture: AI in Retail        |       |

Fig. 11

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**5 µl HLA-DM/MBP ADDITION (BY ROBOT)**

| Category        | Sub-Category       | Item   | Description   |
|-----------------|--------------------|--|---|
| Electronics     | Smartphones        | iPhone 12 Pro  | High-end smartphone with 5G support and advanced camera system.                 |
| Electronics     | Smartphones        | Samsung Galaxy S21                                       | Competitor to iPhone 12 Pro, featuring a powerful processor and a sleek design. |
| Electronics     | Laptops            | Dell XPS 15  | High-performance laptop with a large screen and excellent battery life.         |
| Electronics     | Laptops            | HP Spectre x360  | Thin and light laptop with a convertible screen and a long battery life.        |
| Electronics     | Tablets            | Apple iPad Pro   | Powerful tablet with a high-resolution screen and a range of productivity apps. |
| Electronics     | Tablets            | Microsoft Surface Pro 7                                  | Tablet with a built-in keyboard and a range of productivity tools.              |
| Home & Garden   | Kitchen Appliances | Kenmore Elite 5-in-1 Smart Robot Vacuum                  | Robotic vacuum cleaner with a range of cleaning modes and a self-emptying base. |
| Home & Garden   | Kitchen Appliances | JBL Flip 5 Portable Speaker                              | Portable speaker with a built-in microphone and a range of sound modes.         |
| Home & Garden   | Decor              | West Elm Mid-Century Side Table                          | Stylish side table with a solid wood frame and a minimalist design.             |
| Home & Garden   | Decor              | Urban Outfitters Velvet Throw Pillow                     | Velvet throw pillow with a textured, velvety finish.                            |
| Home & Garden   | Textiles           | Brooklinen Organic Cotton Sheet Set                      | Organic cotton sheet set with a soft, breathable feel.                          |
| Home & Garden   | Textiles           | Leesa Mattress   | Memory foam mattress with a cooling gel-infused cover.                          |
| Health & Beauty | Cosmetics          | Urban Decay Naked Heat Eyeshadow Palette                 | Eye shadow palette with warm, smoky shades.                                     |
| Health & Beauty | Cosmetics          | Too Faced Better Than Sex Lipstick                       | Intense, long-lasting lipstick with a bold, vibrant color.                      |
| Health & Beauty | Haircare           | Redken Volume High Rise Conditioner                      | Conditioner for fine hair to add volume and texture.                            |
| Health & Beauty | Haircare           | John Frieda Sheer Luxe Conditioner                       | Conditioner for dry hair to add shine and softness.                             |
| Health & Beauty | Nails              | Essie Gel Couture Nail Polish                            | Long-lasting nail polish with a gel-like finish.                                |
| Health & Beauty | Nails              | China Glaze Nail Polish                                  | Colorful nail polish with a range of finishes.                                  |
| Books & Media   | Books              | The Great Gatsby by F. Scott Fitzgerald                  | Classic novel about the American Dream in the 1920s.                            |
| Books & Media   | Books              | 1984 by George Orwell                                    | Iconic dystopian novel about government surveillance and control.               |
| Books & Media   | Movies             | The Godfather  | Classic gangster movie directed by Francis Ford Coppola.                        |
| Books & Media   | Movies             | Star Wars: Episode IV - A New Hope                       | Iconic science fiction movie directed by George Lucas.                          |
| Books & Media   | Music              | Billie Eilish - When We All Fall Asleep, Where Do We Go? | Debut album by Billie Eilish, featuring hit songs like "Bad Guy".               |
| Books & Media   | Music              | Drake - Scorpion   | Album by Drake featuring guest appearances from various artists.                |

Fig. 12